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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,615	03/08/2001	Christopher Keith	IVEN125468	7375

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EXAMINER

SUBRAMANIAN, NARAYANSWAMY

ART UNIT PAPER NUMBER

3692

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,615

Applicant(s)

KEITH, CHRISTOPHER

Examiner

Narayanswamy Subramanian

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 28-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 28-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/13/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to applicants' communication filed on September 14, 2006. Amendments to the specification and claims 1-10, cancellation of claims 11-27 and addition of new claims 28-37 have been entered. Rejections made under 35 USC 112, second paragraph in the last office action are withdrawn in view of the amendments. Claims 1-10 and 28-37 are currently pending and have been examined. The rejections and response to arguments are stated below.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-10 and 28-37 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory Subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" (emphasis added).

Claims 1 and 28 are drawn to "a method and system of operating an internal market, the method comprising: automatically causing an order to be simultaneously represented in both the internal market and an external market, wherein the internal and external markets each have a plurality of market participants and separately facilitate an exchange between the market participants; and automatically ensuring the order is executable by a market participant in at most one of the internal market and the external market". As such the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of

nature) and is not directed to a practical application of such judicial exception because the claims do not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result.

The Court of Appeals for the Federal Circuit issued opinions in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). These decisions explained that, to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601 02. To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (a) The claimed invention “transforms” an article or physical object to a different state or thing. (b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The USPTO’s official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. See MPEP § 2107. It is not clear as to what is the utility of the claimed invention. Specifically it is not clear as to what is utility of ensuring the order is executable in at most one of the internal market and the external market.

The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application”). Specifically ensuring

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the order is executable by a market participant in at most one of the internal market and the external market, does not necessarily result in the execution of the order. Hence there is no tangible result produced from implementing the steps of the claimed invention.

For an invention to produce a “concrete” result, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is unrepeatable or unpredictable. It is not clear as to what is the outcome of the step of ensuring the order is executable. Hence it is not clear how the claimed invention produces concrete result.

There is no useful, concrete and tangible result produced from implementing the steps of the claimed invention. The dependent claims 2-10 and 29-37 are rejected for the same reason and by way of dependency on a rejected independent claim.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1 and 28 recite the limitations “causing an order to be simultaneously represented”, “facilitate an exchange” and “ensuring the order is executable”. It is not clear as to what the applicants mean by these limitations. The metes and bounds of terms like “causing an order to be simultaneously represented”, “facilitating”, “ensuring the order is executable” and “uses a software process” are unclear making the scope of the claims indeterminate. Appropriate clarification/correction is required. The dependent claims 2-10 and 29-37 are rejected for the

same reason and by way of dependency on a rejected independent claim. Dependent claims contain similar ambiguities like “causing a transaction performed in one of the internal and external markets to be performed in the other of the internal and external markets”, “causing an execute operation performed in one of the internal and external markets to cause a cancel operation to be performed in the other of the internal and external markets”, “committing the conditional operation” and “to separately facilitate an exchange” making the scope of the claims indeterminate. Appropriate clarification/correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10 and 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korhammer et al. (US Patent 6,278,982 B1)

Claims 1 and 28, Korhammer discloses a method and a system of operating an internal market, the method comprising: automatically causing an order to be simultaneously represented in both the internal market and an external market, wherein the internal and external markets each have a plurality of market participants and separately facilitate an exchange between the market participants (See Korhammer Abstract, Figure 2 and Column 8 lines 40-46, one of ECN is an internal market and the other markets are external markets). Korhammer does not teach the step of automatically ensuring the order is executable by a market participant in at most one of

the internal market and the external market. However the step of ensuring the order is executable is interpreted as intended use and hence not given patentable weight.

Claims 2-6, 9-10, 29-33 and 36-37, Korhammer teaches the steps of automatically synchronizing performance of an operation at the internal market and the external market (See Korhammer Column 12 lines 7-30, coordination of split orders implies synchronization); causing a transaction performed in one of the internal and external markets to be performed in the other of the internal and external markets, the transaction being an operation to cancel or a post an order (See Korhammer Column 12 lines 7-30, causing a transaction to be performed is interpreted as intended use); causing an execute operation performed in one of the internal and external markets to cause a cancel operation to be performed in the other of the internal and external markets (See Korhammer Column 12 lines 7-30, to cause a cancel operation is interpreted as intended use); conditionally performing an operation in one of the internal and external markets, and committing the conditional operation after receiving confirmation from the other of the internal and external markets that the operation has been communicated to the other of the internal and external markets (See Korhammer Column 12 lines 7-30); providing a mechanism for coupling the internal and external markets such that only one of the internal and external markets maintains the order for execution by a market participant at either of the internal market or the external market (See Korhammer Column 11 lines 54-67, for execution by a market participant at either of the internal market or the external market is interpreted as intended use); re-synchronizing an order book containing orders at each of the internal and external markets before decoupling the internal and external markets, wherein the markets, once decoupled, are capable to separately facilitate an exchange between market participants (See

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Korhammer Column 12 lines 7-30, wherein the markets, once decoupled, are capable to separately facilitate an exchange between market participants is interpreted as intended use); the automatically ensuring uses a software process executing on a computer platform that communicates between the internal market and the external market (Inherent in the disclosure of Korhammer).

Claims 7-8 and 34-35, Korhammer does not explicitly teach the steps wherein when one of the internal and external markets is in fast symbol mode, the other of the internal and external markets operates as a router to route orders to the market in fast symbol mode without posting the order at the other of the internal and external markets and wherein an order can be executed at only the market in fast symbol mode. The limitations “to route orders to the market in fast symbol mode without posting the order at the other of the internal and external markets and wherein an order can be executed at only the market in fast symbol mode” are interpreted as intended use.

Official notice is taken executing orders in a market with short latencies, routing the orders to such markets with short latencies and adjusting the orders in the markets before separating the execution in the markets are old and well known in the art. These actions help an investor to realize the best possible prices for his/her transaction in the most time efficient manner.

It would have been obvious to one of ordinary skill in the art to include these features to the invention of Korhammer. The combination of disclosures would have helped an investor to realize the best possible prices for his/her transaction in the most time efficient manner.

Response to Arguments

8. Applicant's arguments with respect to pending claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached at (571) 272-6777. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "N. Sub", followed by a long horizontal flourish.

Dr. N. Subramanian
Primary Examiner

November 26, 2006